Fifth National Green Power Marketing Conference: Powering the New Millennium

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What's Happening in Competitive Markets?

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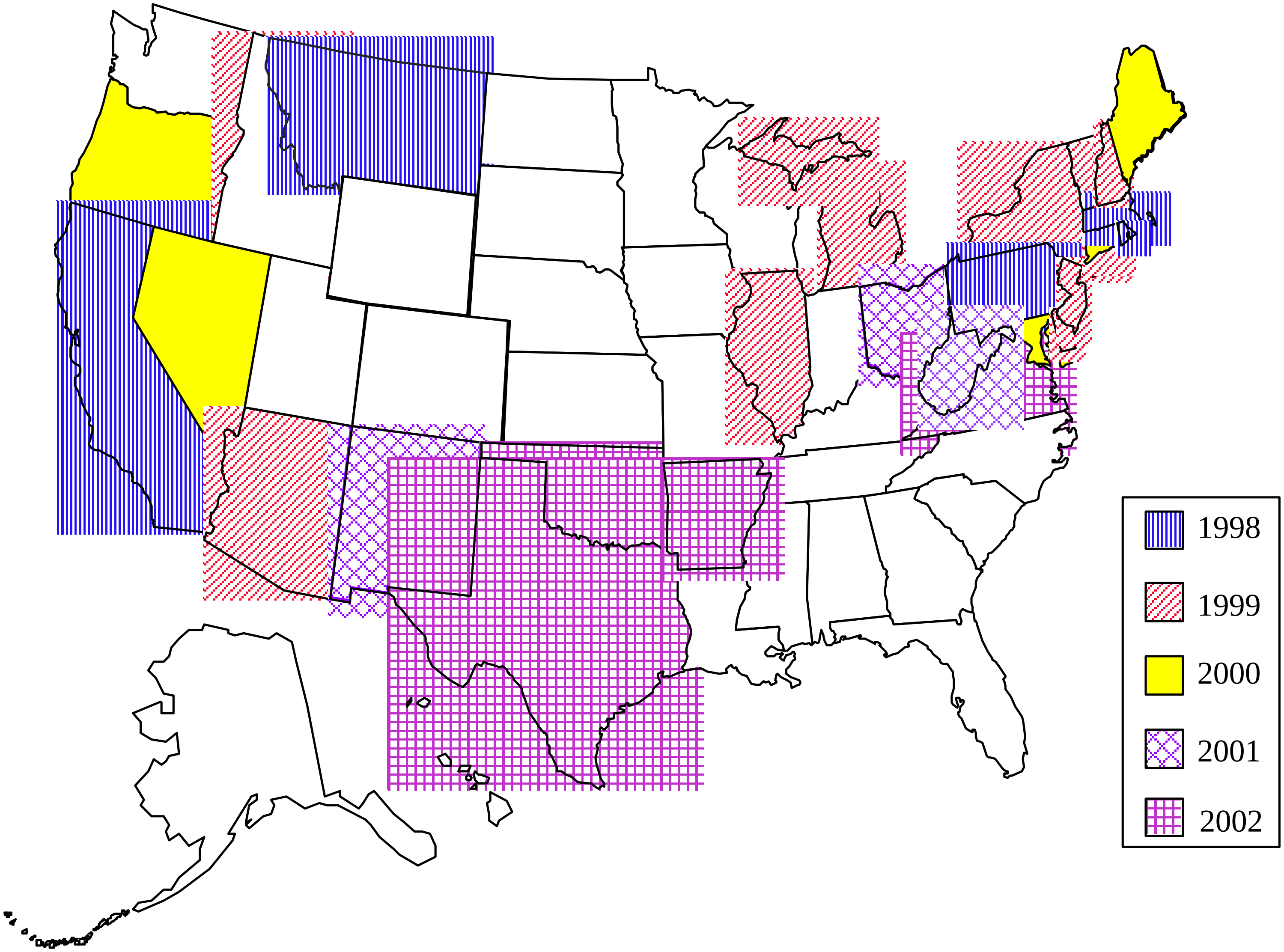
Market Opening Status



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Market Background

- 24 states have adopted customer choice to date
- Total IOU Customers = ~ 92 million
- Less than 20 million have access to choice currently
- By the end of 2002 ~ 57 million customers will have access to choice
- To date, a little over 1 million customers have selected an alternative supplier

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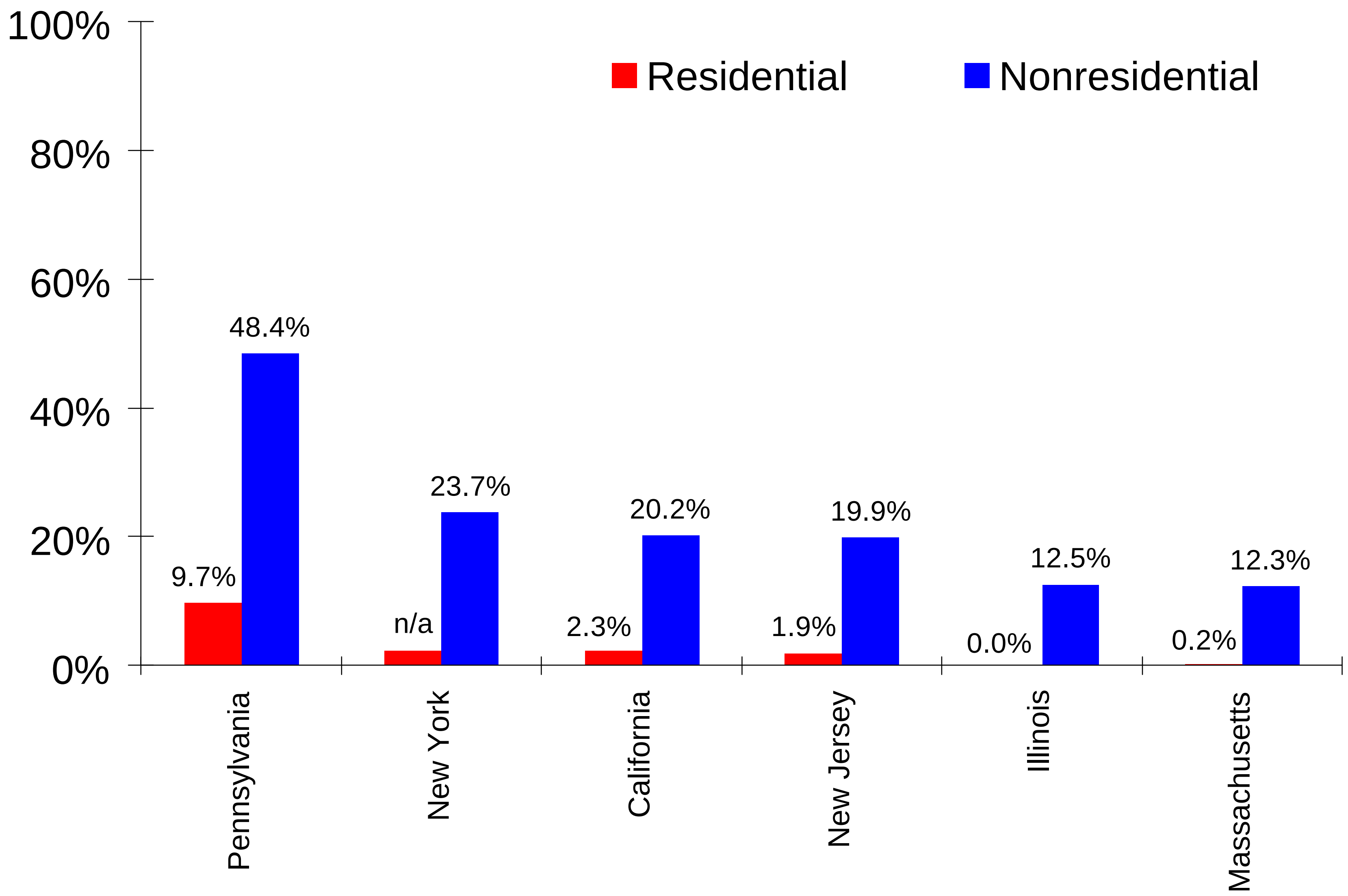
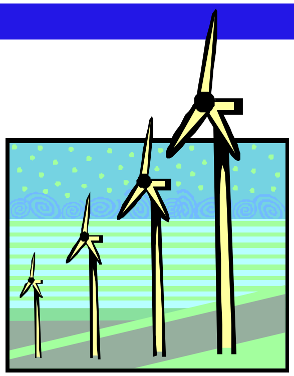
Load Migration by State – Spring 2000



Role of Green Power in Competitive Markets



- As of July 2000, 17 states fully or partially open to competition with retail green offerings in 6 (CA, PA, MA, NJ, ME, CT) and wholesale green through APX markets in other states
- 53 MW of new installed capacity - majority wind and geothermal
- Another 40 MW planned – nearly all wind

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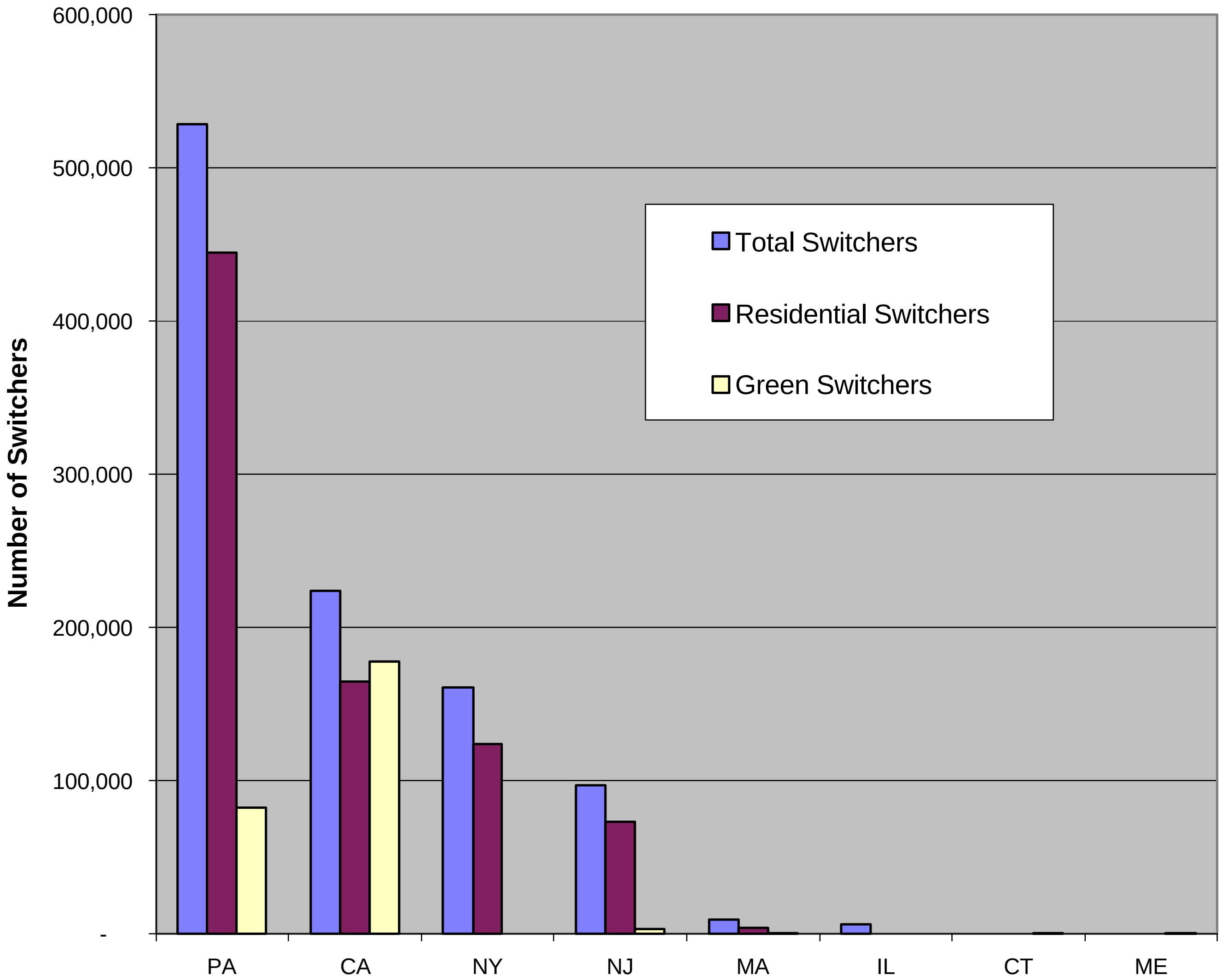
Residential Switching Activity



PA Residential Customer Demographics

- Green customers are more likely to have:
  - High energy use (84% over $50/month)
  - College education
  - Larger households, more children
  - High organic product consumption
  - Energy conservation awareness
  - High Internet use
  - Wealth (28% over $75,000/year)

PA Decision Factors

- Green switchers
  - Best for environment
  - Lowest price
  - Company has environmental philosophy
  - Reduce air pollution
  - Lowest cost green power
- Non-green switchers
  - Lowest price

Role of C, I, & I Customers

- Commercial/Industrial
  - MCI WorldCom
  - Toyota Motor Sales (40 million kWh)
  - Kinko's
  - Patagonia
  - Birkenstock
  - Los Angeles World Airports (50% by 2010)
  - Fetzer Vineyards (5 million kWh)
  - Time Warner Communications (1,700 accounts)
- Institutional
  - City of Chicago (80 MW)
  - Assoc. of CA Water Agencies
  - Cities of Santa Barbara, Santa Monica (5 MW), Oakland (9 MW)
  - U.S Postal Service (1000 sites for 30 million kWh)
  - PA Dept. of General Services (37.5 million kWh)
  - Episcopal Diocese of CA
  - ABAG

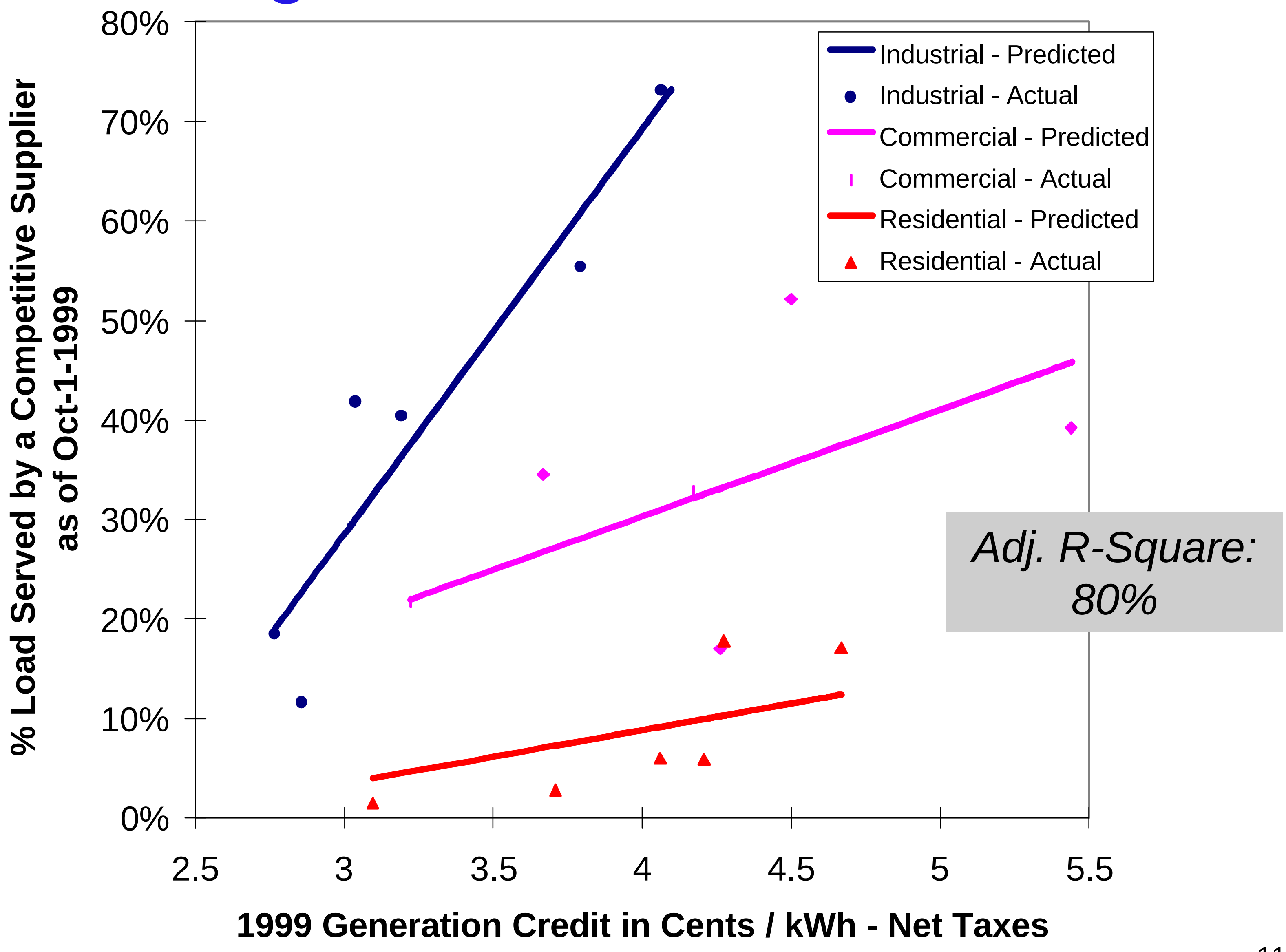
Retail Suppliers

- Active
  - Green Mountain (CA, PA, NJ)
  - Commonwealth Energy (a.k.a Electric America) (CA, PA, NJ?)
  - Go-Green.com (CA)
  - Conectiv (NJ)
  - CT Energy Cooperative (CT)
  - ECAP (PA)
  - Mack Services (PA)
  - Atlantic Energy (ME)
  - Essential.com (MA)
  - AllEnergy (MA)
  - Community Energy (PA)
  - Utility.com
- Dropped Out
  - Enron Energy Services (CA)
  - EdisonSource (CA)
  - PG&E Energy Services (CA)
  - Conectiv (PA)
  - Keystone Energy Services (CA)
  - Friendly Power Corp. (CA)

Market Drivers

- Basic Market Rules
  - Default service
  - Market size
  - Wholesale costs
  - Wholesale market structure
  - Business rules
  - Stranded Costs
  - Competitive Metering, Billing and Customer Service
- Renewable Energy Policies
  - RPS
  - SBC funding
  - Disclosure and labeling requirements
  - Definitions of “green”
  - Existing and new resources
  - Certification
  - Transmission pricing

Modeling Oct-1999 PA Switch Rates



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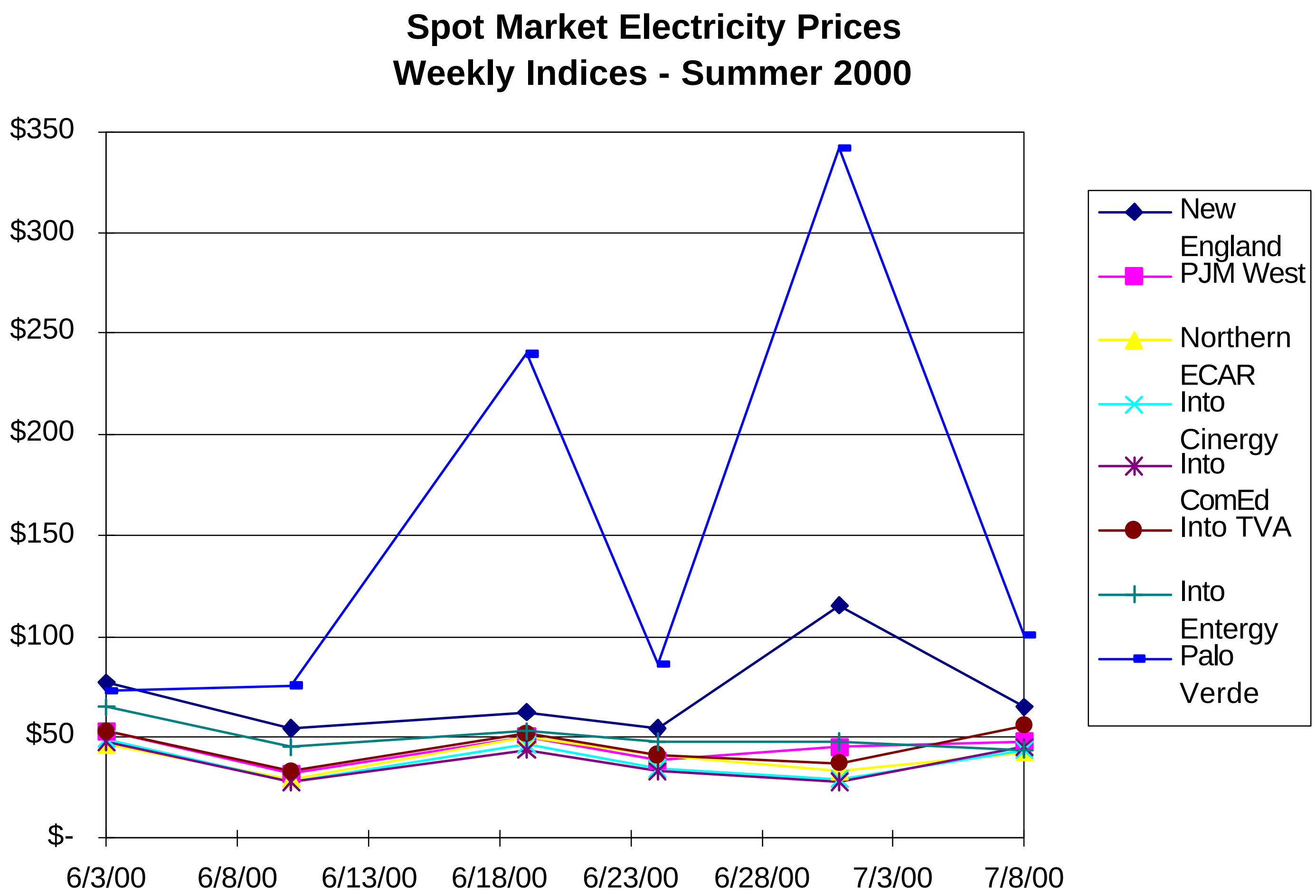
Wholesale Price Spikes in 2000



Customer Dumping

- Recent rash of green customers being dumped in CA and PA due to high wholesale prices and other related issues
  - In PA, Conectiv drops all 70,000 residential customers, including 20,000 green customers
  - In CA, Commonwealth Energy loses contract with SANDAG and turns back undisclosed # of customers

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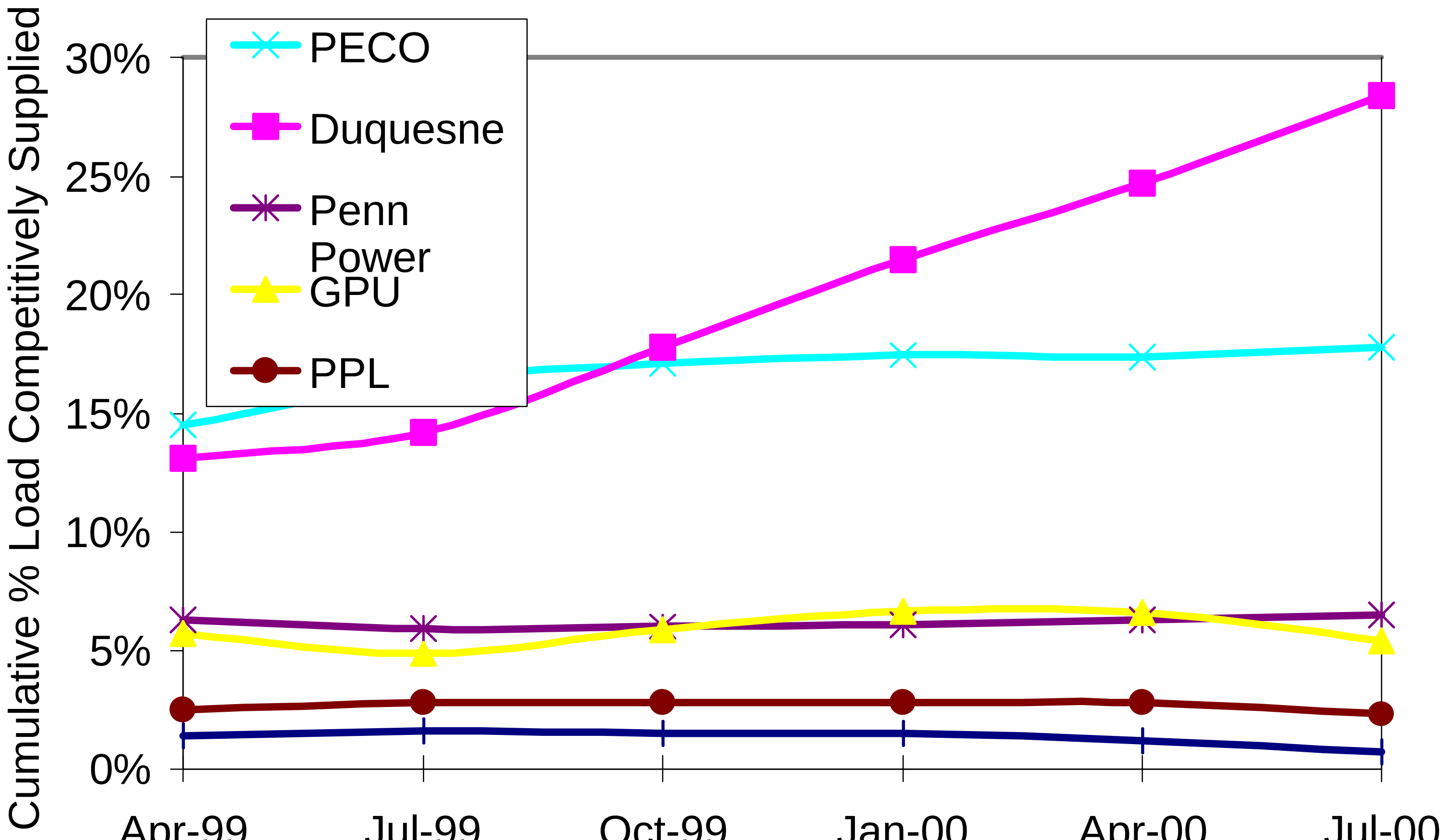
PA Residential Switching Trend



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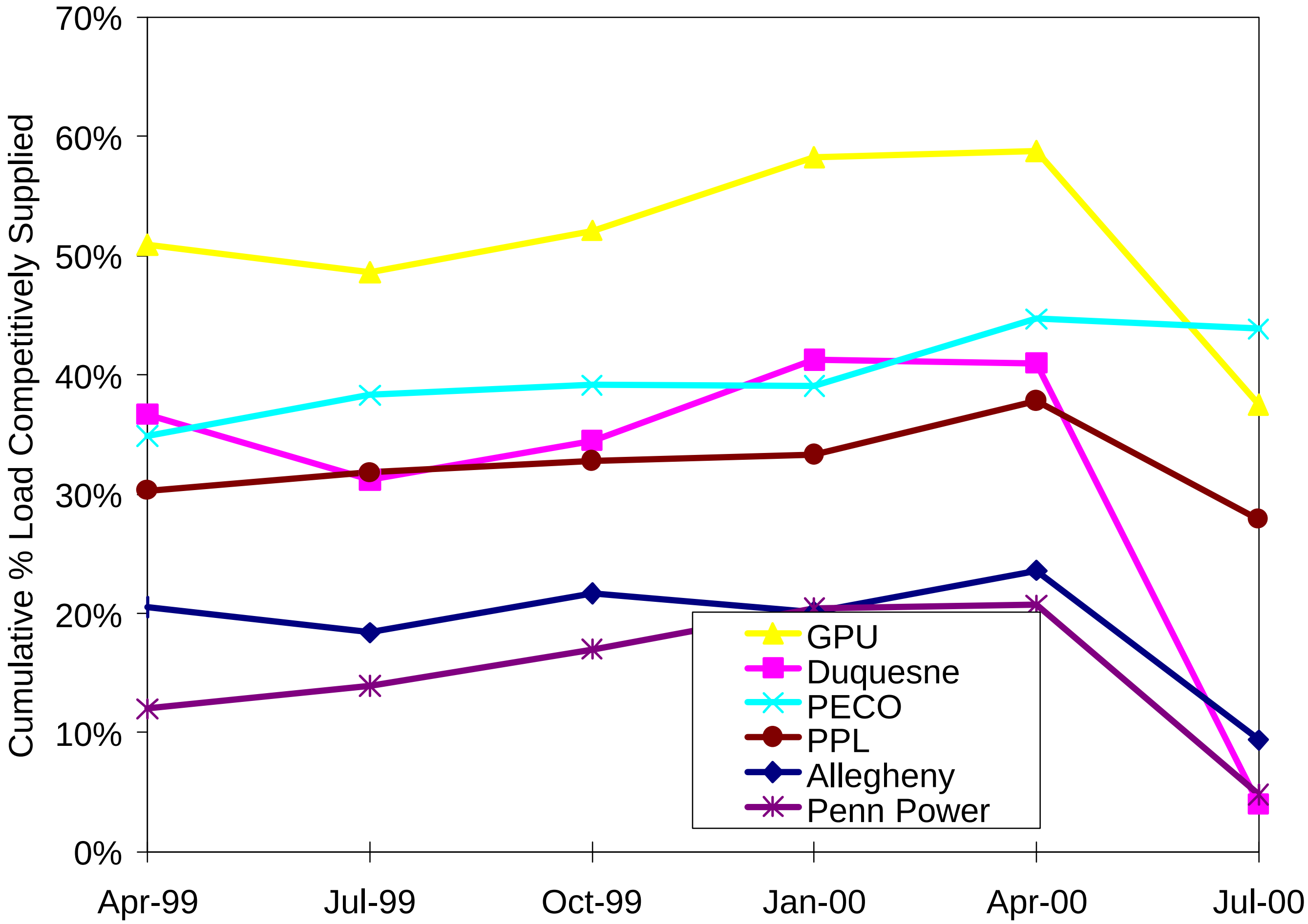
PA Commercial Switching Trend



Market Status

- NJ – Recent decline in competitive load; Internet switching now allowed, still no telephone switching; green switch rates expected to rise as marketing ramps up
- CA – Prior to summer price spikes, slow and steady growth in competitive load; recently markets declared dysfunctional; SDG&E customers fully exposed to market volatility; no surge in activity expected any time soon; hearings to tweak AB 1890
- PA – Residential switch rates have not declined significantly even with dumping; expect increased activity in the fall; free parking still an issue
- MA – Recent decrease in competitive share of load; DTE established market-based default rates

New Markets Outlook

- CT - 4 marketers approved, 6 others awaiting approval, 3 withdrew, CT Energy Cooperative only green marketer to date reporting 200 switchers; lengthy approval process, $250,000 bond, only DISCO billing, default service not subject to RPS
- OH - 20% switching requirement by 2003; shopping incentives for early shoppers, but suppliers are expected to find little headroom
- TX - Preliminary estimates of price to beat (5 cents/kWh) should provide good amount of headroom but stranded costs still need to be worked out; strong RPS and other renewable-friendly policies make green market look promising

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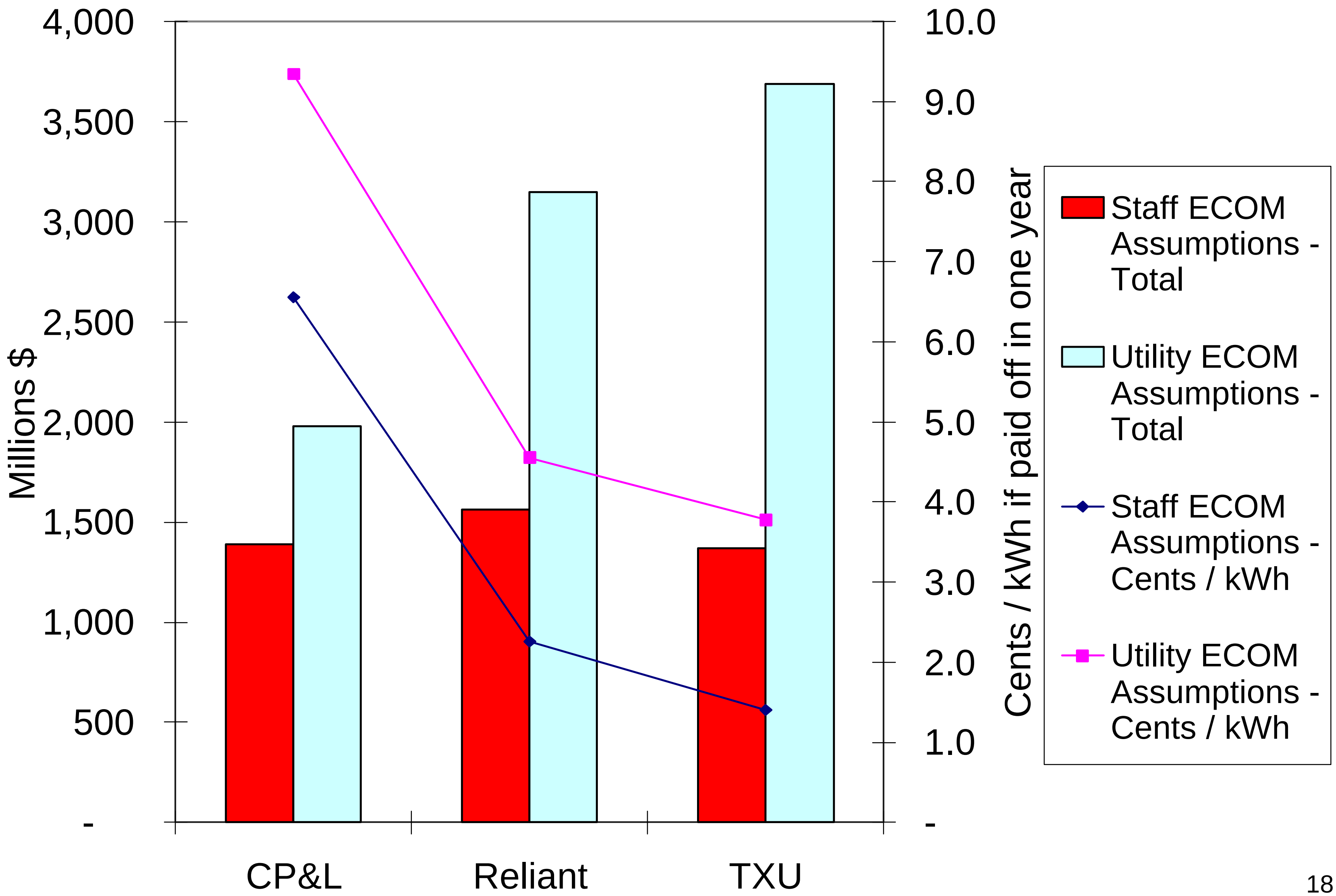
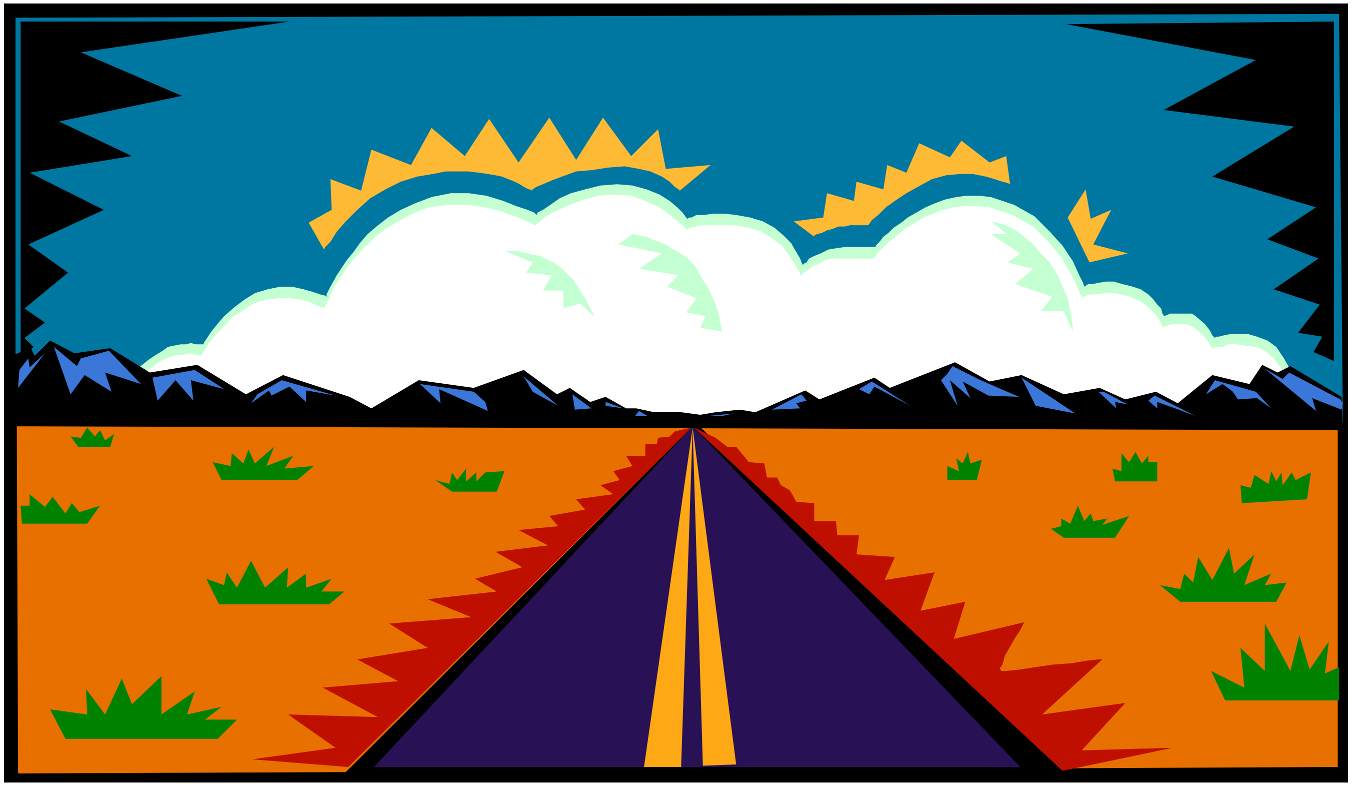
TX: Estimated Stranded Costs by Utility



Conclusions

- Green power has become one of the most successful means of product differentiation, but it cannot transform the market itself
- Supplier margins drive switching activity
- In states where market rules are conducive to competition, expect green power to continue to play key role
- Activity is expected to pick up in the fall
- Enough incentive for new generation out there that wholesale price spikes are not expected to be as dramatic next summer

Its Darkest Before the Dawn



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Questions

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